| | Type | L # | Hits | Search Text | DBs | Time Stamp | Comments | Error Definition | Errors |
|---|---|---|---|---|---|---|---|---|---|
| 1 | BRS | L1 | 5739 | erythropoietin | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 16:56 | | | 0 |
| 2 | BRS | L2 | 643 | human adj 1 | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 16:56 | | | 0 |
| 3 | BRS | L3 | 457 | erythropoietin same modif$3 | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 16:57 | | | 0 |
| 4 | BRS | L4 | 0 | erythropoietin same modif$3 same (glycosylate adj site) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 17:22 | | | 0 |
| 5 | BRS | L5 | 11 | erythropoietin same pegylated | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 17:24 | | | 0 |
| 6 | BRS | L6 | 990051 | buffer or sulfate or phosphate or citrate | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 17:00 | | | 0 |
| 7 | BRS | L7 | 187 | composition same (1 or 2 or 3 or 5) same 6 | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 17:16 | | | 0 |
| 8 | BRS | L8 | 15 | 7 same pH | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 17:14 | | | 0 |
| 9 | BRS | L9 | 136647 | polyol or mannitol | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 17:15 | | | 0 |
| 10 | BRS | L10 | 80586 | phosphate same sulfate | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 17:24 | | | 0 |
| 11 | BRS | L11 | 38588 | arginine | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 17:15 | | | 0 |
| 12 | BRS | L12 | 34161 | methionine | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 17:16 | | | 0 |

| | Type | L # | Hits | Search Text | DBs | Time Stamp | Comments | Error Definition | Errors |
|---|---|---|---|---|---|---|---|---|---|
| 13 | BRS | L13 | 5 | composition same (1 or 2 or 3 or 5) same 10 | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 17:19 | | | 0 |
| 14 | BRS | L14 | 2 | composition same (1 or 2 or 3 or 5) same 10 same 11 | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 17:21 | | | 0 |
| 15 | BRS | L15 | 2 | composition same (1 or 2 or 3 or 5) same 10 same 12 | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 17:22 | | | 0 |
| 16 | BRS | L16 | 2 | composition same (1 or 2 or 3 or 5) same 10 same 9 | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 17:22 | | | 0 |
| 17 | BRS | L17 | 1 | erythropoietin same (glycosylate adj site) | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 17:22 | | | 0 |
| 18 | BRS | L18 | 0 | 5 same 10 | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 17:24 | | | 0 |
| 19 | BRS | L19 | 176987 | (polyethylene adj glycol) or PEG | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 17:25 | | | 0 |
| 20 | BRS | L20 | 1 | 10 same 1 same conjugate | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 17:25 | | | 0 |
| 21 | BRS | L21 | 13 | papadimitriou adj apollon.in. | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 17:52 | | | 0 |
| 22 | BRS | L22 | 2 | 21 and 7 | USPAT; US-PGPUB; EPO; JPO; DERWENT | 2002/12/30 17:52 | | | 0 |

> d his

(FILE 'HOME' ENTERED AT 17:56:14 ON 30 DEC 2002)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT
17:56:41 ON 30 DEC 2002

L1 69852 S ERYTHROPOIETIN
L2 1520 S L1 (P) MODIF?
L3 36 S L1 (P) PEGYLATED
L4 7 S L1 (P) PEG (P) CONJUGATE
L5 43 S L3 OR L4
L6 671 S COMPOSITION (P) (L1 OR L2 OR L5)
L7 2147453 S PHOSPHATE OR SULFATE OR CITRATE
L8 26 S L6 (P) L7
L9 18 DUPLICATE REMOVE L8 (8 DUPLICATES REMOVED)
L10 129664 S POLYOL OR MANNITOL
L11 321133 S ARGININE
L12 220810 S METHIONINE
L13 1 S L9 (P) (L10 OR L11 OR L12)

=> log y

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FILE 'HOME' ENTERED AT 17:56:14 ON 30 DEC 2002

=> file medline caplus biosis embase scisearch agricola
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'MEDLINE' ENTERED AT 17:56:41 ON 30 DEC 2002

FILE 'CAPLUS' ENTERED AT 17:56:41 ON 30 DEC 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE 'BIOSIS' ENTERED AT 17:56:41 ON 30 DEC 2002
COPYRIGHT (C) 2002 BIOLOGICAL ABSTRACTS INC.(R)

FILE 'EMBASE' ENTERED AT 17:56:41 ON 30 DEC 2002
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FILE 'SCISEARCH' ENTERED AT 17:56:41 ON 30 DEC 2002
COPYRIGHT (C) 2002 Institute for Scientific Information (ISI) (R)

FILE 'AGRICOLA' ENTERED AT 17:56:41 ON 30 DEC 2002

=> s erythropoietin
L1       69852 ERYTHROPOIETIN

=> s l1 (p) modif?
L2        1520 L1 (P) MODIF?

=> s l1 (p) pegylated
L3          36 L1 (P) PEGYLATED

=> s l1 (p) PEG (p) conjugate
L4           7 L1 (P) PEG (P) CONJUGATE

=> s l3 or l4
L5          43 L3 OR L4

=> s composition (p) (l1 or l2 or l5)
L6         671 COMPOSITION (P) (L1 OR L2 OR L5)

=> s phosphate or sulfate or citrate
L7     2147453 PHOSPHATE OR SULFATE OR CITRATE

=> s l6 (p) l7
L8          26 L6 (P) L7

=> duplicate remove l8
DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH'
KEEP DUPLICATES FROM MORE THAN ONE FILE?  Y/(N):n
PROCESSING COMPLETED FOR L8
L9          18 DUPLICATE REMOVE L8 (8 DUPLICATES REMOVED)

=> d l9 1-18 ibib abs

L9   ANSWER 1 OF 18  CAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         2002:353984  CAPLUS
DOCUMENT NUMBER:          136:359651
TITLE:                    Compositions containing therapeutic agents complexed
                          with calcium phosphate and encapsulated by casein
INVENTOR(S):              Morcol, Tulin; Bell, Steve J. D.
PATENT ASSIGNEE(S):       USA
SOURCE:                   U.S. Pat. Appl. Publ., 16 pp., Cont.-in-part of U.S.
                          Ser. No. 496,771.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   3
```

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 2002054914 | A1 | 20020509 | US 2001-932503 | 20010817 |
| US 6355271 | B1 | 20020312 | US 2000-496771 | 20000203 |
| WO 2002064112 | A2 | 20020822 | WO 2002-US3506 | 20020207 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

| | | |
|---|---|---|
| US 1999-118355P | P | 19990203 |
| US 1999-118356P | P | 19990203 |
| US 1999-118364P | P | 19990203 |
| US 2000-496771 | A2 | 20000203 |
| US 2001-267357P | P | 20010209 |
| US 2001-932503 | A | 20010817 |

AB The present invention relates generally to an oral drug delivery system which incorporates a therapeutic bioactive agent with biodegradable calcium phosphate particles, the particles then encapsulated by casein. The resulting particles provide a carrier designed to protect the therapeutic agent in the harsh, acidic environment of the stomach before releasing the agent into the small intestine. The therapeutic agent may be any therapeutically effective agent, such as a natural isolate or synthetic chem. or biol. agent, and in particular, may be a protein or a peptide such as insulin. Also incorporated with the particles may be addnl. surface modifying agents to assist binding, controlled release, or to otherwise modify the particles. The particles generally support the therapeutic agent to form controlled- or sustained-release particles for the oral or mucosal delivery of the therapeutic agent over time, wherein the agent is incorporated into the structure of the particle core, disposed on the surface of the particle, or both. Particles having at least a partial coating of human insulin were prepd. by simultaneously injecting 5 mL of 125 mM CaCl2 and 1 mL 156 mM sodium citrate into a beaker contg. 100 mL 1% PEG. A ppt. was formed following the addn. of 5 mL 125 mM Na2HPO4.. Mixing was continued for 48 h at room temp. The resulting particle suspension was sonicated at max. power for 15 min and stored at room temp. until ready for insulin attachment.

L9 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1

ACCESSION NUMBER: 2002:324992 CAPLUS

TITLE: Metabolic flux analysis for human therapeutic protein productions and hypothesis for new therapeutical strategies in medicine

AUTHOR(S): Calik, Pinar; Ozdamar, Tuncer H.

CORPORATE SOURCE: Department of Chemical Engineering, Middle East Technical University, Ankara, 06531, Turk.

SOURCE: Biochemical Engineering Journal (2002), 11(1), 49-68
CODEN: BEJOFV; ISSN: 1369-703X

PUBLISHER: Elsevier Science S.A.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB This work may be considered as a model study for therapeutic protein prodn., and a theor. approach to hypothesise new medical strategies to further applied medical questions. A comprehensive generalised metabolic reaction network of Bacillus licheniformis that considers 149 reaction fluxes and 106 metabolites was used in the mass flux balance-based stoichiometric model for the anal. of human leukocyte interferon (IFN-.alpha.1) and ***erythropoietin*** (EPO) prodn. capacities of recombinant Bacillus species. The importance of cellular energetics on optimum performance was quant. assessed. The metabolic pathways leading to optimized IFN-.alpha.1 and EPO overprodn. were detd. for the two carbon sources that have different redn. degrees (.gamma.), i.e. glucose (.gamma.=4.0) and ***citrate*** (.gamma.=3.0), and the variation of the fluxes were obtained. Metabolic capacity analyses showed that max. IFN-.alpha.1 and EPO synthesis rates were, resp., 0.062 and 0.055 mmol g-1

DW h-1 at .mu.=0 h-1 when gluc[redacted] uptake rate was 10 mmol g-1 DW h-1; and IFN-.alpha.1 and EPO synthesis rates decreased, resp., 1.70- and [redacted]75-fold when ***citrate*** was used as the carbon source. The flux distributions showed that the amino acid ***compn*** . of the proteins influence the prodn. Leucine appears to be the most important amino acid for both IFN-.alpha.1 and EPO prodn. Consequently, pyruvate seems to be the crit. main branch point and B. pasteurii seems to be the favorable host for therapeutical protein prodn. due to the high leucine uptake capacity. The results encourage the discussion on the potential strategies for improving prodn. of IFN-.alpha.1 and EPO, and further enable us to assert medical hypothesis in order to support the immune system of the human body against the deficiencies of the synthesis of IFN-.alpha.1 and EPO in the human cells.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:850963 CAPLUS
DOCUMENT NUMBER: 136:11065
TITLE: New pharmaceutical composition
INVENTOR(S): Papadimitriou, Apollon
PATENT ASSIGNEE(S): F. Hoffmann-La Roche A.-G., Switz.
SOURCE: PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2001087329 | A1 | 20011122 | WO 2001-EP5187 | 20010508 |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CO, CU, CZ, DE, DK, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| US 2002037841 | A1 | 20020328 | US 2001-853731 | 20010511 |

PRIORITY APPLN. INFO.: EP 2000-110355 A 20000515

AB The present invention relates to a liq. pharmaceutical compn. comprising an erythropoietin protein, a multiple charged inorg. anion in a pharmaceutically acceptable buffer suitable to keep the soln. pH in the range from about 5.5 to about 7.0, and optionally one or more pharmaceutically acceptable excipients. This compn. is esp. useful for the prophylaxis and treatment of diseases related to erythropoiesis.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:780644 CAPLUS
DOCUMENT NUMBER: 135:322743
TITLE: Sustained release drug compositions containing a mucopolysaccharide
INVENTOR(S): Mizushima, Yutaka; Igarashi, Rie; Kitagawa, Aki; Takagi, Yukie
PATENT ASSIGNEE(S): Ltt Institute Co., Ltd., Japan
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2001078682 | A2 | 20011025 | WO 2001-JP3287 | 20010417 |
| WO 2001078682 | A3 | 20020418 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, | | | | |

CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

| | | | | |
|---|---|---|---|---|
| JP 2002003398 | A2 | 20020109 | JP 2000-203850 | 20000705 |
| US 2002019336 | A1 | 20020214 | US 2001-834103 | 20010412 |

PRIORITY APPLN. INFO.: JP 2000-115091 A 20000417
JP 2000-203850 A 20000705

AB The invention relates to a ***compn*** . providing sustained release of a drug, the ***compn*** . including (1) a mucopolysaccharide, e.g., chondroitin ***sulfate*** or hyaluronate, a carrier protein, such as .gamma.-globulin, albumin, fibrinogen, histone, etc., and a drug or (2) a mucopolysaccharide and a protein drug, such as, ***erythropoietin*** , granulocyte colony stimulating factor, thrombopoietin, antibodies, interferons, etc. For example, Na chondroitin ***sulfate*** and human .gamma.-globulin were mixed in a wt. ratio of 1:4, 1:3, 1:2, 1:1, and 2:1, resp., with the concn. of the chondroitin being fixed at 1% of ***compn*** . wt. The pH of the pptg. soln. was lowered to .apprx. pH 3, and an insol. product was obtained by centrifugation. The harvested insol. product was then suspended in a ***phosphate*** buffered saline (pH 7.2) for a release test. ***Compns*** . with ratio of 1:2 and 1:3 provided release of more drug than other ratios.

L9 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:335260 CAPLUS
DOCUMENT NUMBER: 132:352795
TITLE: Method for obtaining lyophilized pharmaceutical compositions of recombinant human erythropoietin stable at room temperature
INVENTOR(S): Carcagno, Carlos Miguel; Criscuolo, Marcelo; Melo, Carlos; Vidal, Juan Alejandro
PATENT ASSIGNEE(S): Sterrenbeld Biotechnologie North America, Inc., USA
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2000027419 | A1 | 20000518 | WO 1999-US26237 | 19991108 |

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: AP 1998-105608 A 19981106
AP 1999-100677 A 19990223

AB The present invention relates, in general, to a lyophilized pharmaceutical compn. comprising recombinant human erythropoietin, which retains at least 95 % of its biol. activity after 24 mo at room temp. The present invention also relates to a method for producing a recombinant human erythropoietin compd., which is stable at room temp.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:291239 CAPLUS
DOCUMENT NUMBER: 132:330372
TITLE: Novel hyperglycosylated erythropoietin analogs, and methods and compositions for the prevention and treatment of anemia
INVENTOR(S): Egrie, Joan C.; Elliott, Steven G.; Brown, Jeffrey K.
PATENT ASSIGNEE(S): Amgen Inc., USA

SOURCE: PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2000024893 | A2 | 20000504 | WO 1999-US24435 | 19991018 |
| WO 2000024893 | A3 | 20000914 | | |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| CA 2345882 | AA | 20000504 | CA 1999-2345882 | 19991018 |
| EP 1123313 | A2 | 20010816 | EP 1999-955046 | 19991018 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| JP 2002528465 | T2 | 20020903 | JP 2000-578445 | 19991018 |

PRIORITY APPLN. INFO.: US 1998-178292 A 19981023
WO 1999-US24435 W 19991018

AB Methods for increasing and maintaining hematocrit in a mammal comprising administering a hyperglycosylated analog of erythropoietin are disclosed. An analog may be administered less frequently than an equiv. molar amt. of recombinant human erythropoietin to obtain a comparable target hematocrit and treat anemia. Alternatively, a lower molar amt. of a hyperglycosylated analog may be administered to obtain a comparable target hematocrit and treat anemia. Also disclosed are new hyperglycosylated erythropoietin analogs, methods of prodn. of the analogs, and compns. comprising the analogs.

L9 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:197980 CAPLUS
DOCUMENT NUMBER: 132:227484
TITLE: Aqueous formulations of biologically active polypeptides
INVENTOR(S): Papadimitriou, Apollon
PATENT ASSIGNEE(S): Hoffmann-La Roche, A.-G., Switz.
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 2000086532 | A2 | 20000328 | JP 1999-248013 | 19990901 |
| EP 1002547 | A1 | 20000524 | EP 1999-116537 | 19990824 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| CN 1250669 | A | 20000419 | CN 1999-119245 | 19990827 |
| KR 2000022777 | A | 20000425 | KR 1999-36053 | 19990828 |
| NO 9904214 | A | 20000302 | NO 1999-4214 | 19990831 |
| AU 9944866 | A1 | 20000316 | AU 1999-44866 | 19990831 |
| ZA 9905601 | A | 20000927 | ZA 1999-5601 | 19990831 |
| RU 2180855 | C2 | 20020327 | RU 1999-118890 | 19990831 |
| BR 9903984 | A | 20010313 | BR 1999-3984 | 19990901 |
| US 2002028766 | A1 | 20020307 | US 2001-953721 | 20010917 |

PRIORITY APPLN. INFO.: EP 1998-116494 A 19980901
US 1999-385404 A3 19990830

AB This invention relates to drug delivery systems of polypeptides with improved soly. Pharmacol. active polypeptides selected from the group consisting of hedgehog proteins, osteogenic factors, growth factors, ***erythropoietin*** , thrombopoietin, G-CSF, interleukins, and interferons, are combined with amphipathic substances to form ionic

complexes in formulating aq. ***compns*** . .alpha.-Interferon in Tris buffer (pH 7.4) was dialyzed in a soln. contg. deoxycholic acid and phosphatidylserine and formulated with a soln. contg. NaCl, Na ***phosphate*** buffer soln. and deoxycholic acid for injection.

L9 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:549135 CAPLUS
DOCUMENT NUMBER: 131:161653
TITLE: Erythropoietin liposomal dispersion
INVENTOR(S): Naff, Rainer; Delmenico, Sandro; Wetter, Andre; Flother, Frank-Ulrich
PATENT ASSIGNEE(S): Cilag A.-G. International, Switz.
SOURCE: PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9942085 | A1 | 19990826 | WO 1999-IB249 | 19990212 |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| EP 937456 | A1 | 19990825 | EP 1998-103111 | 19980223 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| CA 2320072 | AA | 19990826 | CA 1999-2320072 | 19990212 |
| AU 9921808 | A1 | 19990906 | AU 1999-21808 | 19990212 |
| AU 750481 | B2 | 20020718 | | |
| BR 9908202 | A | 20001024 | BR 1999-8202 | 19990212 |
| JP 2002503685 | T2 | 20020205 | JP 2000-532102 | 19990212 |
| US 2002028236 | A1 | 20020307 | US 1999-252563 | 19990218 |
| NO 2000004186 | A | 20000822 | NO 2000-4186 | 20000822 |

PRIORITY APPLN. INFO.: EP 1998-103111 A 19980223
WO 1999-IB249 W 19990212

AB The present invention relates to a liposome-based formulation of ***erythropoietin*** comprising: (a) an effective amt. of an ***erythropoietin*** ; (b) a lipidic phase contg. (1) lecithin or hydrogenated lecithin, (2) optionally, a charged electropos. or electroneg. lipid compd., and (3) cholesterol or a deriv. thereof selected from cholesterol esters, polyethylene glycol derivs. of cholesterol (PEG-cholesterols) and org. acid derivs. of cholesterols; and (c) a ***phosphate*** buffer. The liposome-based parenteral dosage form of the invention is prepd. by means of an ethanol injection technique. The ***compn*** . avoids the need for use of human serum albumin and exhibits superior stability. A liposome-based dispersion contained ***erythropoietin*** 1 million IU, hydrogenated soya lecithin 0.5, cholesterol 0.1, Na dipalmitoylphosphatidic acid 0.04, ethanol 0.5, NaH2PO4.cntdot.2H2O 0.1164, Na2HPO4.cntdot.2H2O 0.2225, NaCl 0.584, and purified water to 97.9371 g.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:78461 CAPLUS
DOCUMENT NUMBER: 130:144219
TITLE: Water-in-oil microemulsions containing cholesterols
INVENTOR(S): Takahashi, Masao; Nakamura, Kaoru; Matsushita, Hiroshi
PATENT ASSIGNEE(S): Advanced Skin Research Kenkyusho K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 11029464 | A2 | 19990202 | JP 1997-181237 | 19970707 |

PRIORITY APPLN. INFO.: JP 1997-181237 19970707

AB Water-in-oil microemulsions contain oils, surfactants mainly contg. oligomeric surfactants, cholesterols, and H2O. The microemulsions are esp. useful for carrying peptide pharmaceuticals or water-sol. and nonabsorbable low-mol.-wt. compds. A microemulsion was formed from a ***compn*** . contg. cholesterol 0.06, polyoxyethylene (10 mol ethylene oxide) hydrogenated castor oil 9.94, ***phosphate*** buffer 5.5, ***erythropoietin*** 0.0001, and iso-Pr palmitate to 100 wt.%.

L9 ANSWER 10 OF 18 MEDLINE DUPLICATE 2

ACCESSION NUMBER: 2000024448 MEDLINE
DOCUMENT NUMBER: 20024448 PubMed ID: 10561805
TITLE: Foetal fluid balance and hormone status following nephrectomy in the foetal sheep.
AUTHOR: Moritz K M; Macris M; Talbo G; Wintour E M
CORPORATE SOURCE: Howard Florey Institute of Experimental Physiology and Medicine, University of Melbourne, Parkville, Victoria, Australia.
SOURCE: CLINICAL AND EXPERIMENTAL PHARMACOLOGY AND PHYSIOLOGY, (1999 Nov) 26 (11) 857-64.
Journal code: 0425076. ISSN: 0305-1870.
PUB. COUNTRY: Australia
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199912
ENTRY DATE: Entered STN: 20000113
Last Updated on STN: 20000113
Entered Medline: 19991216

AB 1. The role of the kidneys in the maintenance of normal foetal plasma (FP) ***composition*** and hormone concentrations was examined in the present study. Five ovine foetuses were chronically cannulated and nephrectomized (nephx) at 100 +/- 1 days of gestation and maintained for 14 days. These were compared to five intact control foetuses. 2. Four hours after nephx, FP renin concentrations were significantly lower than in control foetuses. By 48 h, renin concentrations in nephx foetuses were below the level of detectability of the assay. Foetal plasma aldosterone concentrations declined in nephx foetuses, but were not significantly different to those in control foetuses (P = 0.08). 3. During the second week, the nephx foetuses were significantly hypoxic, but FP ***erythropoietin*** concentrations were not increased. Adrenocorticotropic hormone (ACTH) and cortisol concentrations, when measured on day 14, were not different between the two groups. Adrenocorticotropic hormone levels were correlated with adrenal weight at post-mortem. 4. Foetal plasma creatinine, magnesium and ***phosphate*** concentrations in nephx foetuses increased, eventually reaching values approximately twice that in controls. Foetal plasma chloride levels decreased continuously in nephx foetuses, eventually being 23 mmol/L lower than controls. Maternal plasma ***composition*** was unchanged. 5. Total foetal fluid (amniotic + allantoic) volumes were reduced when measured at post-mortem on day 14 after nephx. The ***composition*** of both fluids was significantly altered in the nephx foetuses compared with controls. 6. Fetuses can survive in utero for 2 weeks after bilateral nephrectomy. However, there are multiple changes in plasma ***composition*** that may compromise foetal survival in the long term.

L9 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:118553 CAPLUS
DOCUMENT NUMBER: 128:172142
TITLE: Pharmaceutical composition for sustained release of non-aggregated erythropoietin
INVENTOR(S): Zale, Stephen E.; Burke, Paul A.; Bernstein, Howard; Brickner, Avram
PATENT ASSIGNEE(S): Alkermes, Inc., USA
SOURCE: U.S., 14 pp., Cont.-in-part of U.S. Ser. No. 885,307, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 10
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 5716644 | A | 19980210 | US 1995-478502 | 19950607 |
| CA 2223834 | AA | 19961219 | CA 1996-2223834 | 19960603 |
| WO 9640073 | A2 | 19961219 | WO 1996-US8474 | 19960603 |
| WO 9640073 | A3 | 19970123 | | |
| W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG | | | | |
| RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN | | | | |
| AU 9659724 | A1 | 19961230 | AU 1996-59724 | 19960603 |
| AU 705451 | B2 | 19990520 | | |
| CN 1187134 | A | 19980708 | CN 1996-194611 | 19960603 |
| EP 871433 | A2 | 19981021 | EP 1996-917028 | 19960603 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| JP 11506764 | T2 | 19990615 | JP 1996-501068 | 19960603 |
| CA 2223583 | AA | 19961219 | CA 1996-2223583 | 19960604 |
| WO 9640074 | A2 | 19961219 | WO 1996-US8526 | 19960604 |
| WO 9640074 | A3 | 19970206 | | |
| W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG | | | | |
| RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA | | | | |
| AU 9660341 | A1 | 19961230 | AU 1996-60341 | 19960604 |
| AU 705968 | B2 | 19990603 | | |
| EP 831786 | A2 | 19980401 | EP 1996-917966 | 19960604 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| JP 2001515457 | T2 | 20010918 | JP 1997-501097 | 19960604 |
| AU 9742755 | A1 | 19980115 | AU 1997-42755 | 19971021 |
| AU 698016 | B2 | 19981022 | | |

| PRIORITY APPLN. INFO.: | | | |
|---|---|---|---|
| | US 1992-885307 | B2 | 19920611 |
| | US 1995-473544 | A | 19950607 |
| | US 1995-477725 | A | 19950607 |
| | US 1995-478502 | A | 19950607 |
| | US 1995-483318 | A | 19950607 |
| | US 1995-521744 | A | 19950831 |
| | WO 1996-US8474 | W | 19960603 |
| | WO 1996-US8526 | W | 19960604 |

AB A ***compn*** ., and methods of forming and using said ***compn*** ., for the sustained release of non-aggregated, biol. active, ***erythropoietin*** (EPO) is disclosed. The sustained-release ***compn*** . of this invention comprises a polymeric matrix of a biocompatible polymer and particles of biol. active, aggregation-stabilized EPO, wherein said particles are dispersed within the biocompatible polymer. The method of the invention for producing a ***compn*** . for the sustained release of biol. active EPO, includes dissolving a biocompatible polymer in a polymer solvent to form a polymer soln., dispersing particles of biol. active, aggregation-stabilized EPO in the polymer soln., and then solidifying the polymer to form a polymeric matrix contg. a dispersion of said EPO particles. The method for using a ***compn*** . of the invention is a method for providing a therapeutically effective blood level of biol. active, non-aggregated ***erythropoietin*** in a subject for a sustained period. In this method, a subject is administered an ED of the sustained release ***compn*** . of the present invention. A soln. contg. EPO 10.0, ammonium ***sulfate*** 66.8, 5 mM ***citrate*** /5m Mphosphate (pH = 7) 22.1, inulin 1.1% was lyophilized. Microspheres contg. above aggregation-stabilized EPO were prepd. from poly(lactide-glycolide) (50:50, mol. wt. 10,000 Da).

L9 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:660651 CAPLUS

DOCUMENT NUMBER: 127:298769
TITLE: Composition for sustained release of non-aggregated erythropoietin
INVENTOR(S): Zale, Stephen E.; Burke, Paul A.; Bernstein, Howard; Brickner, Avram
PATENT ASSIGNEE(S): Alkermes, Inc., USA
SOURCE: U.S., 15 pp., Cont.-in-part of U.S. Ser. No. 885,307, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 10
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 5674534 | A | 19971007 | US 1995-483318 | 19950607 |
| CA 2223583 | AA | 19961219 | CA 1996-2223583 | 19960604 |
| WO 9640074 | A2 | 19961219 | WO 1996-US8526 | 19960604 |
| WO 9640074 | A3 | 19970206 | | |
| W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG | | | | |
| RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA | | | | |
| AU 9660341 | A1 | 19961230 | AU 1996-60341 | 19960604 |
| AU 705968 | B2 | 19990603 | | |
| EP 831786 | A2 | 19980401 | EP 1996-917966 | 19960604 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| JP 2001515457 | T2 | 20010918 | JP 1997-501097 | 19960604 |
| AU 9742755 | A1 | 19980115 | AU 1997-42755 | 19971021 |
| AU 698016 | B2 | 19981022 | | |

PRIORITY APPLN. INFO.:

| | | |
|---|---|---|
| US 1992-885307 | B2 | 19920611 |
| US 1995-473544 | A | 19950607 |
| US 1995-477725 | A | 19950607 |
| US 1995-478502 | A | 19950607 |
| US 1995-483318 | A | 19950607 |
| US 1995-521744 | A | 19950831 |
| WO 1996-US8526 | W | 19960604 |

AB A ***compn*** ., and methods of forming and using said ***compn*** ., for the sustained release of non-aggregated, biol. active, ***erythropoietin*** (EPO). The sustained release ***compn*** . of this invention comprises a polymeric matrix of a biocompatible polymer and particles of biol. active, aggregation-stabilized EPO, wherein said particles are dispersed within the biocompatible polymer. The method of the invention for producing a ***compn*** . for the sustained release of biol. active EPO, includes dissolving a biocompatible polymer in a polymer solvent to form a polymer soln., dispersing particles of biol. active, aggregation-stabilized EPO in the polymer soln., and then solidifying the polymer to form a polymeric matrix contg. a dispersion of said EPO particles. The method for using a ***compn*** . of the invention is a method for providing a therapeutically effective blood level of biol. active, non-aggregated ***erythropoietin*** in a subject for a sustained period. In this method, a subject is administered an ED of the sustained release ***compn*** . of the present invention. One example ***compn*** . contained EPO 10.0, ammonium ***sulfate*** 66.8, ***phosphate*** buffer with 5mM ***citrate*** 22.1 and inulin 1.1%.

L9 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:119179 CAPLUS
DOCUMENT NUMBER: 126:135628
TITLE: Composition for sustained release of nonaggregated erythropoietin
INVENTOR(S): Zale, Stephen E.; Burke, Paul A.; Bernstein, Howard; Brickner, Avram
PATENT ASSIGNEE(S): Alkermes Controlled Therapeutics, Inc., USA
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 10
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9640073 | A2 | 19961219 | WO 1996-US8474 | 19960603 |
| WO 9640073 | A3 | 19970123 | | |
| W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG | | | | |
| RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN | | | | |
| US 5716644 | A | 19980210 | US 1995-478502 | 19950607 |
| AU 9659724 | A1 | 19961230 | AU 1996-59724 | 19960603 |
| AU 705451 | B2 | 19990520 | | |
| EP 871433 | A2 | 19981021 | EP 1996-917028 | 19960603 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| JP 11506764 | T2 | 19990615 | JP 1996-501068 | 19960603 |

PRIORITY APPLN. INFO.: US 1995-478502 A 19950607
US 1992-885307 B2 19920611
WO 1996-US8474 W 19960603

AB A ***compn*** ., and methods of forming and using the ***compn*** ., for the sustained release of non-aggregated, biol. active ***erythropoietin*** (EPO) are described. The sustained-release ***compn*** . comprises a polymeric matrix of a biocompatible polymer and particles of biol. active, aggregation-stabilized EPO, wherein the particles are dispersed within the biocompatible polymer. The ***compn*** . for the sustained release of EPO is produced by dissolving the biocompatible polymer in a polymer solvent to form a polymer soln., dispersing particles of biol. active, aggregation-stabilized EPO in the polymer soln., and then solidifying the polymer to form a polymeric matrix contg. a dispersion of the EPO particles. Thus, a formulation contained ***erythropoietin*** 10.0, ammonium ***sulfate*** 66.8, pH 7 5 mM ***citrate*** / ***phosphate*** buffer 22.1 and inulin 1.1%. Microspheres contg. the above aggregation-stabilized ***erythropoietin*** formulations were prepd. from polyglycolide-polylactide. The immunoreactivity of the EPO in these microspheres was detd. by extg. the protein and analyzing by RIA.

L9 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:354442 CAPLUS
DOCUMENT NUMBER: 122:114940
TITLE: slow-release pharmaceuticals of water-soluble peptide hormones
INVENTOR(S): Sakurai, Hiroshi
PATENT ASSIGNEE(S): Kirin Brewery, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 06321803 | A2 | 19941122 | JP 1993-139066 | 19930517 |

PRIORITY APPLN. INFO.: JP 1993-139066 19930517

AB Implant-type pharmaceutical ***compns*** . contg. water-sol. peptide hormones (e.g. ***erythropoietin*** ) for slow-release are prepd. by filling physiol. active water-sol. peptide hormones mixed with vehicle selected from gelatin, albumin, collagen, fibrin, hyaluronic acid, chondroitin ***sulfate*** , alginic acid, gum arabic and dextrin into a .ltoreq. 1mm outer diam. tube made of insol. biodegradable polymers such as polylactic acid. The prepns. can be implanted into patients by injection for slow-release.

L9 ANSWER 15 OF 18 MEDLINE DUPLICATE 3
ACCESSION NUMBER: 94264673 MEDLINE
DOCUMENT NUMBER: 94264673 PubMed ID: 8205112

TITLE: An improved meth[redacted] for the purification of human erythropoietin with high in vivo activity from th[redacted]rine of anemic patients.
AUTHOR: Inoue N; Wada M; Takeuchi M
CORPORATE SOURCE: Pharmaceutical Laboratory, Kirin Brewery Co., Ltd., Gumma, Japan.
SOURCE: BIOLOGICAL AND PHARMACEUTICAL BULLETIN, (1994 Feb) 17 (2) 180-4.
Journal code: 9311984. ISSN: 0918-6158.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199407
ENTRY DATE: Entered STN: 19940721
Last Updated on STN: 19980206
Entered Medline: 19940708

AB An improved method for the purification of human ***erythropoietin*** with high in vivo activity from urine was developed. This method involved ion-exchange, gel permeation, affinity chromatography, and reverse-phase chromatography but did not involve any stabilizing procedures. The purified human urinary ***erythropoietin*** showed a single broad band with a molecular weight between 37000 and 39000 Da on sodium dodecyl ***sulfate*** polyacrylamide gel electrophoresis, and had an in vivo specific activity of 160000 IU/mg comparable to that of human ***erythropoietin*** produced in recombinant Chinese hamster ovary cells. We found that omission of the phenol treatment and ethanol precipitation which are usually used in the purification of human urinary ***erythropoietin*** greatly improved the biological activity of the final product. Phenol treatment followed by ethanol precipitation did not affect the amino acid ***composition*** but decreased the apparent molecular weight and N-acetylglucosamine content of human urinary ***erythropoietin*** . These findings suggest that phenol treatment followed by ethanol precipitation does not restore ***erythropoietin*** with high branched sugar chains which would have high in vivo specific activity as reported previously (M. Takeuchi, et al. (1989) Proc. Natl. Acad. Sci. U.S.A., 86, 7819-7822).

L9 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:154580 CAPLUS
DOCUMENT NUMBER: 118:154580
TITLE: Water-soluble compositions of peptides for sustained-release
INVENTOR(S): Igari, Yasutaka; Yamada, Minoru; Ishiguro, Seiko
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: Eur. Pat. Appl., 18 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| EP 525813 | A1 | 19930203 | EP 1992-113144 | 19920801 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE | | | | |
| US 5344644 | A | 19940906 | US 1992-919401 | 19920723 |
| CA 2075005 | AA | 19930202 | CA 1992-2075005 | 19920730 |
| JP 05186364 | A2 | 19930727 | JP 1992-203984 | 19920730 |

PRIORITY APPLN. INFO.: JP 1991-192874 19910801

AB The title ***compns*** . comprise a water-sol., pharmacol. active peptide in combination with a ***sulfate*** group-contg. acidic mucopolysaccharide and/or a desulfated ***modification*** thereof to produce prolonged pharmacol. effects without adversely affecting the activity of the peptides. An injection soln. contained human ***erythropoietin*** 3000 IU, mannitol 25 mg, human serum albumin 1 mg, and physiol. saline 2 mL. To 1.14 mL of the resultant soln. was added 1.14 mL of a 1% chondroitin ***sulfate*** , followed by thorough mixing.

L9 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:589805 CAPLUS

DOCUMENT NUMBER: 115:189805
TITLE: Cyclodextrin-based erythropoietin formulatio
INVENTOR(S): Konings, Frank J.; Noppe, Marcus J. M.; Mesens, Jean L.
PATENT ASSIGNEE(S): Janssen Pharmaceutica N. V., Belg.
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9111200 | A1 | 19910808 | WO 1991-EP173 | 19910125 |
| W: AU, BB, BG, BR, CA, FI, HU, JP, KP, KR, LK, MC, MG, MW, NO, PL, RO, SD, SU, US | | | | |
| RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, DK, ES, FR, GA, GB, GR, IT, LU, ML, MR, NL, SE, SN, TD, TG | | | | |
| IL 97019 | A1 | 19970713 | IL 1991-97019 | 19910124 |
| CA 2074820 | AA | 19910730 | CA 1991-2074820 | 19910125 |
| AU 9171497 | A1 | 19910821 | AU 1991-71497 | 19910125 |
| AU 648061 | B2 | 19940414 | | |
| EP 513072 | A1 | 19921119 | EP 1991-902955 | 19910125 |
| EP 513072 | B1 | 19940622 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| HU 62198 | A2 | 19930428 | HU 1992-2432 | 19910125 |
| HU 218213 | B | 20000628 | | |
| JP 05503700 | T2 | 19930617 | JP 1991-503095 | 19910125 |
| JP 2997052 | B2 | 20000111 | | |
| ES 2059115 | T3 | 19941101 | ES 1991-902955 | 19910125 |
| ZA 9100620 | A | 19921028 | ZA 1991-620 | 19910128 |
| US 5376632 | A | 19941227 | US 1992-906780 | 19920630 |
| FI 9203402 | A | 19920728 | FI 1992-3402 | 19920728 |
| NO 9202990 | A | 19920729 | NO 1992-2990 | 19920729 |

PRIORITY APPLN. INFO.: GB 1990-1987 A 19900129
WO 1991-EP173 A 19910125

AB A pharmaceutical ***compn*** . for parenteral and local administration comprises an aq. soln. of ***erythropoietin*** and a .beta.- or .gamma.-cyclodextrin hydroxyalkyl deriv. The ***compn*** . can be formulated into a lyophilized or spray-dried form. The ***compn*** . is stable over a long period of time and allows self-administration for the treatment of anemia (no data). An injectable soln. contained human recombinant ***erythropoietin*** 4000 U, NaCl 3.59 mg, Na ***citrate*** .2H2O 5.8 mg, citric acid.H2O 62 .mu.g, hydroxypropyl .beta.-cyclodextrin 100 mg, 1 N NaOH or 1 N HCl q.s. to pH 6.9, and water to 1 mL.

L9 ANSWER 18 OF 18 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1984:153499 BIOSIS
DOCUMENT NUMBER: BR27:69991
TITLE: MYELOID AND LYMPHOID REPERTOIRE OF HUMAN PLURIPOTENT HEMOPOIETIC PROGENITORS.
AUTHOR(S): MESSNER H A; LIM B; JAMAL N
CORPORATE SOURCE: ONTARIO CANCER INST., INST. MED. SCI., DEP. MED., UNIV. TORONTO, ONTARIO, CANADA.
SOURCE: YOUNG, N. S., A. S. LEVINE AND P. K. HUMPHRIES (ED.). PROGRESS IN CLINICAL AND BIOLOGICAL RESEARCH, VOL. 148. APLASTIC ANEMIA: STEM CELL BIOLOGY AND ADVANCES IN TREATMENT; PROCEEDINGS OF THE 3RD INTERNATIONAL CONFERENCE, AIRLIE, VA., USA, JUNE 26-28, 1983. XXX+357P. ALAN R. LISS, INC.: NEW YORK, N.Y., USA. ILLUS, (1984) 0 (0), P45-50. CODEN: PCBRD2. ISSN: 0361-7742. ISBN: 0-8451-0148-.
FILE SEGMENT: BR; OLD
LANGUAGE: English

=> s polyol or mannitol
L10 129664 POLYOL OR MANNITOL

=> s arginine
L11 321133 ARGININE

```
=> s methionine
L12     220810 METHIONINE

=> d his

     (FILE 'HOME' ENTERED AT 17:56:14 ON 30 DEC 2002)

     FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT
     17:56:41 ON 30 DEC 2002
L1         69852 S ERYTHROPOIETIN
L2          1520 S L1 (P) MODIF?
L3            36 S L1 (P) PEGYLATED
L4             7 S L1 (P) PEG (P) CONJUGATE
L5            43 S L3 OR L4
L6           671 S COMPOSITION (P) (L1 OR L2 OR L5)
L7       2147453 S PHOSPHATE OR SULFATE OR CITRATE
L8            26 S L6 (P) L7
L9            18 DUPLICATE REMOVE L8 (8 DUPLICATES REMOVED)
L10       129664 S POLYOL OR MANNITOL
L11       321133 S ARGININE
L12       220810 S METHIONINE

=> s l9 (p) (L10 or l11 or l12)
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L85 (P) '
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L87 (P) '
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L89 (P) '
L13           1 L9 (P) (L10 OR L11 OR L12)

=> d l13 1 ibib abs

L13  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         1993:154580  CAPLUS
DOCUMENT NUMBER:          118:154580
TITLE:                    Water-soluble compositions of peptides for
                          sustained-release
INVENTOR(S):              Igari, Yasutaka; Yamada, Minoru; Ishiguro, Seiko
PATENT ASSIGNEE(S):       Takeda Chemical Industries, Ltd., Japan
SOURCE:                   Eur. Pat. Appl., 18 pp.
                          CODEN: EPXXDW
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
     EP 525813          A1   19930203       EP 1992-113144   19920801
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE
     US 5344644         A    19940906       US 1992-919401   19920723
     CA 2075005         AA   19930202       CA 1992-2075005  19920730
     JP 05186364        A2   19930727       JP 1992-203984   19920730
PRIORITY APPLN. INFO.:                   JP 1991-192874      19910801
AB   The title   ***compns***  . comprise a water-sol., pharmacol. active
     peptide in combination with a   ***sulfate***   group-contg. acidic
     mucopolysaccharide and/or a desulfated   ***modification***   thereof to
     produce prolonged pharmacol. effects without adversely affecting the
     activity of the peptides.  An injection soln. contained human
       ***erythropoietin***   3000 IU,   ***mannitol***   25 mg, human serum
     albumin 1 mg, and physiol. saline 2 mL.  To 1.14 mL of the resultant soln.
     was added 1.14 mL of a 1% chondroitin   ***sulfate***  , followed by
     thorough mixing.


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     (FILE 'HOME' ENTERED AT 17:56:14 ON 30 DEC 2002)

     FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT
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     17:56:41 ON 30 DEC 2002
L1         69852 S ERYTHROPOIETIN
L2          1520 S L1 (P) MODIF?
L3            36 S L1 (P) PEGYLATED
L4             7 S L1 (P) PEG (P) CONJUGATE
L5            43 S L3 OR L4
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L8            26 S L6 (P) L7
L9            18 DUPLICATE REMOVE L8 (8 DUPLICATES REMOVED)
L10       129664 S POLYOL OR MANNITOL
L11       321133 S ARGININE
L12       220810 S METHIONINE
L13            1 S L9 (P) (L10 OR L11 OR L12)

=> log y
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                      ENTRY    SESSION
FULL ESTIMATED COST                                   78.57      78.78

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                      ENTRY    SESSION
CA SUBSCRIBER PRICE                                   -9.91      -9.91

STN INTERNATIONAL LOGOFF AT 18:11:36 ON 30 DEC 2002
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